**To:** Levy, Jonathan I[jonlevy@bu.edu]
**Cc:** Nidhi R. Santen[nrsanten@synapse-energy.com]
**From:** Jeremy Fisher
**Sent:** Tue 9/22/2015 4:44:27 PM
**Subject:** RE: conceptual question re AVERT

Hey Jon,

Great to hear from you. You ask a fine and dandy question, to which I don't have a great answer. We figured for general use purposes, parsing pro-rata by generation isn't a bad start, figuring that generation and load are roughly correlated. But of course there are [many] states where the load is not even close to generation, and our regions might break across those lines. You could imagine circumstances where load is primarily served by (marginal) generators across a state line – and then of course our boundaries might not represent verifiable boundaries either. So it's sort of a tricky problem. I think in circumstances where you know the location of your marginal load changes, it's probably preferable to take the pro-rata share of each region based on load, not generation (i.e. your second option).

I am sort of curious about that Missouri situation, because I don't currently see a reasonable mechanism in AVERT to figure out how much of Missouri's marginal load is served by a region that doesn't even cross into Missouri. When you said that 21% of MO electricity is from the SE, do you mean contractually? Or what? How are you determining who's serving electricity across a boundary?

And yes, I'd love to hear more about the project in general.

Cheers

-Jeremy

**From:** Levy, Jonathan I [mailto:jonlevy@bu.edu]
**Sent:** Tuesday, September 22, 2015 9:46 AM
**To:** Jeremy Fisher <jfisher@synapse-energy.com>
**Subject:** conceptual question re AVERT

Jeremy – Hope all is well with you…we have been using AVERT in a project, and bumped into a conceptual question that I thought you might be the best person to answer. We are modeling the health benefits of residential EE programs assuming to be applied uniformly across a state (i.e., every home retrofits with insulation). For states that are split across AVERT boundaries, we can see 2 different ways to do things. One approach is to use the fraction of generation in each AVERT region (Table 3 in the user's manual). A second approach, since we know the location of the programs by virtue of knowing where the homes are, is to calculate the fraction of homes

physically located in each of the AVERT regions within a state. We had originally done the latter, which seemed logical, but then we didn't seem to be capturing situations where power plants feeding into a state were not located within the state – like MO, for example, where 21% of the electricity is from the Southeast region but none of the state appears to physically cross into the Southeast region. What would you recommend? Thanks…happy to discuss the project in general if you are interested….

Jon

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